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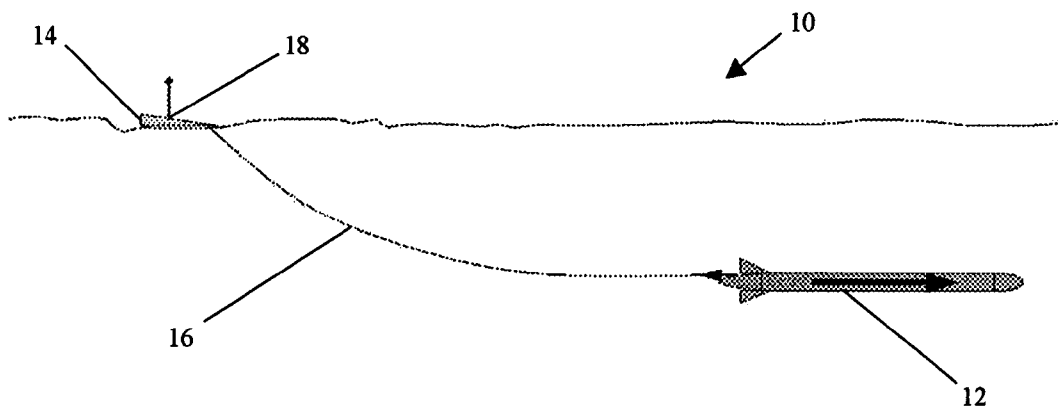
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(54) Title: SYSTEM AND METHOD FOR DETERMINING THE POSITION OF AN UNDERWATER VEHICLE



(57) Abstract: A system and a method are provided for determining the position of an underwater vehicle while the vehicle is operating underwater. A buoyant float stays on or near the surface of the water and is attached to the vehicle by thin tether that can include insulated wires. The vehicle moves under the water and pulls the float behind it. The float can receive a localization signal, such as a signal indicating its GPS position, and so can determine its position precisely. The position can be transmitted to the underwater vehicle over the wires located in the tether. The underwater vehicle can use sensors and/or calculations to determine the positional offset of the vehicle from the float buoy and generates its true position based on the known position of the float and the positional offset. The float can be constructed with attributes that will allow the float it operate with a greater tether length, and in turn allow the underwater vehicle to operate at greater depths. The float may also generally carry a radio system for high speed communication of signals from the vehicle while the vehicle is submerged.



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